

GUJARAT TECHNOLOGICAL UNIVERSITY**B.E. Sem-Vth Examination December 2010****Subject code: 152802****Subject Name: Technology of Dyeing - I****Date: 15 / 12 / 2010****Time: 03.00 pm - 05.30 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** Answer in Short: **14**
- (i) Define % shade.
 - (ii) Explain M.L.R. 1:40
 - (iii) What is Direct dye chemically?
 - (iv) What is the function of mordant in Basic dye dyeing on cotton?
 - (v) What are monofunctional and bifunctional reactive dyes?
 - (vi) Which are the two different components in azoic colour development?
 - (vii) Give the name of major two classes of Vat dyes.
 - (viii) Give some trade names of solubilized vat dyes.
 - (ix) Where sulphur black colours are largely used?
 - (x) What are oxidation colours?
 - (xi) Classify different dyes on cotton in increasing order of cost effectiveness.
 - (xii) By which inorganic salts, mineral khaki is obtained?
 - (xiii) What are pigment colours?
 - (xiv) What is greenable and ungreenable aniline black colours?
- Q.2** (a) Discuss rope dyeing method of dyeing indigo blue on denim. Compare & contrast with sheet dyeing method. **07**
- (b) Discuss dyeing of sulphur / indigo blue combination on denim dyeing. **07**
- OR**
- (b) Describe faults & their corrections during denim dyeing. **07**
- Q.3** Elaborate technological process conditions in Direct dyeing on cotton **14**
- OR**
- Q.3** Enumerate different after treatments given to direct dyed cotton fabric. Explain any two such methods. Give their limitations. **14**
- Q.4** Discuss in detail different steps in the development of azoic colour with all possible precautions at each stage. **14**
- OR**
- Q.4** (a) Explain the chemistry and application of chlorotriazine reactive dyes on cotton **07**
- (b) Give a chart of different reactive system with their commercial names in reactive dyes. **07**
- Q.5** (a) Describe principle of application of vat dyes on cotton. **07**
- (b) Give methods of stripping of solubilized vat dyes from cotton fabric. **07**
- OR**
- Q.5** (a) What are sulphur dyes. Describe the major two defects of sulphur black colour. **07**
- (b) Describe principle and application methods of mineral khaki on drill varieties of cotton fabric. **07**
